

Claims

- [c1] 1. A method for performing thermal feasibility analysis for an enclosure containing electronics, the method comprising:
obtaining design parameters related to the enclosure;
performing a thermal feasibility analysis for a plurality of enclosure designs in response to said design parameters, said enclosure designs varying in enclosure material, mounting location of the electronics and presence of a heat sink;
said enclosure material including plastic;
displaying results of the thermal feasibility analysis for said plurality of enclosure designs.
- [c2] 2. The method of claim 1 wherein said thermal feasibility analysis includes an electronics temperature range for each enclosure design.
- [c3] 3. The method of claim 2 wherein said displaying includes displaying the electronics temperature range for each enclosure design.
- [c4] 4. The method of claim 3 wherein said electronics temperature range for each enclosure design is displayed graphically relative to a user-defined electronics temperature limit.
- [c5] 5. The method of claim 4 wherein said electronics temperature range for each enclosure design is displayed in varying colors in response to a positional relationship between said electronics temperature range and said user-defined electronics temperature limit.
- [c6] 6. The method of claim 2 wherein said displaying includes graphically depicting said enclosure material, mounting location of the electronics and presence of the heat sink.
- [c7] 7. The method of claim 2 wherein said displaying includes textually describing said enclosure material, mounting location of the electronics and presence of the heat sink.

- [c8] 8. The method of claim 1 wherein said thermal feasibility analysis includes an enclosure temperature range for each enclosure design.
- [c9] 9. The method of claim 8 wherein said displaying includes displaying the enclosure temperature range for each enclosure design.
- [c10] 10. The method of claim 9 wherein said enclosure temperature range for each enclosure design is displayed graphically relative to a material temperature limit.
- [c11] 11. The method of claim 10 wherein said enclosure temperature range for each enclosure design is displayed in varying colors in response to a positional relationship between said enclosure temperature range and said material temperature limit.
- [c12] 12. The method of claim 10 wherein said material temperature limit is a heat deflection temperature for a plastic.
- [c13] 13. The method of claim 9 wherein said displaying includes graphically depicting said enclosure material, mounting location of the electronics and presence of the heat sink.
- [c14] 14. The method of claim 9 wherein said displaying includes textually describing said enclosure material, mounting location of the electronics and presence of the heat sink.
- [c15] 15. The method of claim 1 wherein said design parameters include enclosure volume, electronics volume, electronics power, ambient temperature and heat sink area.
- [c16] 16. A method for performing thermal feasibility analysis for an enclosure containing electronics, the method comprising:
obtaining design parameters related to the enclosure;
performing a thermal feasibility analysis for a plurality of enclosure designs in response to said design parameters, said enclosure designs varying in enclosure material, mounting location of the electronics and presence of a

heat sink;
said enclosure material including plastic and metal;
displaying results of the thermal feasibility analysis for said plurality of enclosure designs;
wherein said thermal feasibility analysis includes an electronics temperature range for each enclosure design, said displaying including displaying the electronics temperature range for each enclosure design graphically relative to a user-defined electronics temperature limit; and,
wherein said thermal feasibility analysis includes an enclosure temperature range for each enclosure design, said displaying including displaying the enclosure temperature range for each enclosure design graphically relative to a material temperature limit.

[c17] 17. A system for performing thermal feasibility analysis for an enclosure containing electronics, the system comprising:
a host system coupled to a network;
a database coupled to said host system, said database including thermal feasibility analysis data;
said host system receiving design parameters related to the enclosure over said network;
said host system performing a thermal feasibility analysis for a plurality of enclosure designs in response to said design parameters and said thermal feasibility data, said enclosure designs varying in enclosure material, mounting location of the electronics and presence of a heat sink, said enclosure material including plastic;
said host system providing results of the thermal feasibility analysis for said plurality of enclosure designs to user systems coupled to said network.

[c18] 18. A storage medium encoded with machine-readable computer program code for performing thermal feasibility analysis for an enclosure containing electronics in a system including a host system, a database coupled to the host system and a user system coupled to the host system by a network, the storage medium including instructions for causing the host system to

